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ABSTRACT

This issue of the Multi-State Consortium on Performance-Based Teacher Education (PBTE) newsletter presents an examination of Florida International University's efforts over two academic years to develop and implement performance-based curricula across all of its programs at both the undergraduate and graduate levels. Efforts were aimed at establishing programs that would be performance-based, criterion-referenced in evaluation, field directed, and characterized by multimedia-based instructional processes with high incidence of self-instructional possibilities. Articles highlight: (1) methods developed to determine module format, terminology, and instructional processes; (2) description of the General Teaching Skills Laboratory I and Human Relations Training, General Teaching Laboratory II; (3) the field experience provisions in the Dade County Public School System; (4) data collection for evaluating student progress, course analyses, student attitudes toward courses, instructors, and performance-based education in general, and to assess individual programs; (5) a systems view of the PBTE program within Florida International University and its parent State University System, as they all operate within the community of the state of Florida; and (6) philosophical and practical problems of PBTE, including the identification and assessment of competencies, utilization of faculty time, and the variability of student performance and pacing. (MJB)

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PBTE

PERFORMANCE - BASED TEACHER EDUCATION

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One Year in Retrospect

PBTE is pleased to have the opportunity to present to its readers this indepth look at Florida International University, an institution that has developed a performance-based curriculum for all of its education offerings at both the graduate and undergraduate levels. We are particularly grateful to Dean Wes Sowards and his faculty for their willingness to share with our readers their experiences.

by

G. Wesley Sowards

Dean, School of Education

What you will read in the several articles that are to be found in this issue of the PBTE Newsletter is based on one School of Education's efforts, extending from September 1971, to June 1973, to develop and implement performance-based curricula across the full range of programs for which we are responsible at both the undergraduate and graduate levels. What is unique in this venture is the fact that Florida International University is a new campus in the State University System of Florida. It opened its doors to students for the first time in September 1972, as an upper division graduate institution. It is this circumstance that has

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One Year . . . *Cont.*

led us to assume authorship for this issue of the Newsletter. It seems appropriate and potentially useful to our extended colleague group across the Nation, and most especially to institutions included in the sponsoring PBTE State Consortium, to share our experience to date — both the good and the not so good, the completed and the still to be done and, though our history is brief, a bit of the reflective, à la " if we were starting again."

Let me comment again on the newsletter itself. Clearly, we have not written about everything that could have been written about. Generally, what is included represents some sorting on our part as to what would be useful to readers. It is also influenced to a degree by the simple matter of faculty who had time and motivation to write something. The article by Gallagher is largely definitional. The articles that follow by Sobol, Kampsnider, Shostak, and Gay speak to specific program components. They describe things we have done and are doing. The closing articles by Fain and Kennedy are more reflective in nature, and our efforts to place into some perspective what is happening here and in other places, in terms of things to think about, ideationally and organizationally.

Through it all it is to be hoped that our desire to be open and frank about what has been done and still remains to be done will not be read as any lessening of our excitement for what we are doing. I feel confident in saying that the consensus of the faculty is overwhelmingly in support of our efforts to achieve PBTE programs. But we speak now with a sensitivity and feeling for the developmental work to be done that we would have been unable to do in September 1971.

The purpose of this introductory statement is to set the stage for you to get the most from what follows in the several articles that focus on specific dimensions of our work to date. I apologize in advance to those of you who may feel that I have overpersonalized this statement. I take this risk simply because it seems to be the best way to communicate to you exactly how it all came to be.

I found myself in the late spring of 1970 asked to assume the responsibility to bring into being a School of Education that was to be one of five professional schools in a new state university located in the Greater Miami area of South Florida. The University was being established dedicated to the general proposition that it become an institution whose energies in teaching and in service would be directed toward helping improve the quality of life in this large urban region. As the name Florida International University indicates, another mission of the institution is to include direct efforts to improve international awareness and understanding — especially between the peoples of the U.S.A. and Latin America. Further, the whole spirit of this new University, ably and persuasively expressed by its young president, Charles E. Perry, was to accept the challenge forthrightly for breaking some new ground in American higher education in whatever ways were called for by the mission of a particular unit within the University.

In accepting the appointment in September 1970, as the first Dean of the School of Education, it was agreed that our efforts would be directed to establishing programs that would be:

1. Developed to performance-based specifications
2. Anchored in criterion-referenced evaluation
3. Much less campus-bound and much more set in the field
4. Committed to individualizing instruction
5. Characterized by a multimedia-based instructional process with high incidence of self-instructional possibilities.

To attempt this in the School of Education was viewed as being consistent with the cutting-edge role which this new University was ready to assume.

I was well aware, of course, of the intriguing work that had been done through the 1960's in an attempt to describe and analyze the act of teaching and of the efforts that were being made to make of teacher preparation a more role-relevant and effective experience. Illustratively, some of this work had concerned itself simply with efforts to operate school-based training models. A number of investigators had attempted to analyze teaching into a set of basic technical skills and to determine the feasibility of training persons to use them. Still others had looked to simulation and " edited " reality as a training setting, and such arrangements as microteaching had been successfully used in a number of places.

In 1967–68, the USOE made a funding decision that was to have emphatic influence on the thinking of planners in teacher education. I refer here to the sponsorship in 1968 by the USOE of the nine contracts that came to be referred to in the business as

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G. Wesley Sowards

One Year . . . *Cont.*

" the elementary models " projects. You will remember that eight universities and one regional educational laboratory were supported to conceptualize independently, what they would consider to be an exemplary program for the preparation of elementary schoolteachers. Most of these projects had their funding extended into 1969–70 to determine the feasibility of operating the training models that had been put to paper. My experience with one of these model projects at Florida State University served to dramatically sharpen my belief in the need and the possibility to radically restructure teacher education programs.

Wisely, the Board of Regents of the State University System of Florida funded a number of academic planning positions for the University to use during the 1971–72 year. Thus during the academic year 1970–71, I " toiled in the vineyard " of general organization and design and in the selection and appointment of personnel who could provide the leadership and the imagination that our program commitments required.

By September 1971, we had assembled a planning staff of 13 people whose responsibility was to insure that we were operative in September 1972, and that our programs came as close to being characterized by the elements listed above as possible. There is no way in a few words to indicate the enthusiasm with which this staff threw itself into this assignment and the degree to which they extended themselves to get the job done. We were housed in trailers during that year and their fragile walls were at times severely strained in the heat of debate over terminology, definitions, format, statements of competencies, and so on.

We did open as scheduled in September 1972, with a staff of 43 and we were legitimately performance-based. We were, admittedly, uneven in achievements schoolwide. Our profile as we came out of the starting gate looked not unlike the achievement profile of most students, with highs, lows, and middle-range points. Over the 1972–73 year we worked, of course, to realize more completely our total set of program goals. In the process we have had our share of vivid successes and disappointing frustrations. Much of that we share with you in this newsletter. Suffice it to say that we enter this 1973–74 academic year with no less a resolve that we are on a proper and correct course of action, and with greater awareness and insight concerning the mountains we must climb to realize our goals. Nothing much is " built in a day," and so it will be with our performance-based teacher education curricula. But built it will be, or I am badly misjudging the strength of these ideas and the energy of our faculty.

Module Format and The Instructional Process

by
Paul D. Gallagher
Assistant Dean for Instructional Systems

The performance-based teacher education programs in the School of Education at Florida International University were built on the premise that the actual competencies required of the trainees for program completion and teacher certification would be spelled out for all to see. There would be no hidden agendas. The trainee would have to demonstrate his ability to promote desirable learning situations and positive learner outcomes through the application of prespecified competencies. In addition, it was felt that the trainee should be held accountable for a knowledge base about teaching, derived from the literature, as well as for attaining a stated level of competence in performing essential teaching tasks in classroom or simulated situations. It was also felt that the instructional process through which the trainee would achieve the competencies should be varied and include optional routes to desired learnings.

The purpose of this article is to generally describe the FIU instructional delivery system in order to provide the reader with an understanding of the paradigm utilized to achieve the objectives of the various programs. Specifically, the matter of format, terminology, and instructional process will be looked at.

Format and Terminology

One of the initial assignments undertaken by the planning staff was to decide on the format and terminology that would come to characterize our programs. A general survey of the literature revealed almost as many different formats and sets of terms as there were PBTE programs across the country. For example, the training of teachers is being conducted with WILKITS, LAPS, and UNIPACS, to name a few. Further, each of these training packages are comprised of behavioral objectives, competencies, tasks, etc. It is not easy to get a clear picture of the multitude of forms and jargons related to PBTE.

Not unlike each of the groups of professionals who " invented " and use the previously stated terminology, we set out to establish a format with terminology that would best serve the purpose of communicating our intent to students, faculty, teacher trainers, and the teaching profession. The entire staff felt that it was necessary to establish a schoolwide set of common terms and a common modular format.

After a series of seminars and meetings at the school and divisional levels, it was decided that, within the course structure of the State University System, the most appropriate format would be one that would include modules, tasks, enablers, instructional resources, and entry behavior. Each course offered by the school is composed of a set of modules with the following format:

Module	a cluster of related tasks. (The module title describes the competencies to be learned.)
Introduction	a general description of the content and purpose of the module.
Goal	a short, concise statement of the overall objective of the module.
Task	the instructional competency (stated in behavioral terms) to be demonstrated by the trainee.
Enabler	an objective or set of objectives prerequisite to the successful completion of the task. Through the accomplishment of the enablers, the trainee demonstrates that he has the necessary knowledge and/or skill to complete the task.
Instructional Resources	a list of required and/or suggested instructional materials and learning experiences that would lead to the successful completion of the particular task(s) and enabler(s).
Entry Behavior	a description of the necessary prerequisite skills of the module.

Experience with this modular format reveals that it is readily understood by students and the profession. After the initial " shock " of trying to understand what modules were

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Module Format . . . *Cont.*

all about, students have accepted and appear to be enjoying the process of learning in a PBTE system.

Instructional Process

Once a student registers for a course, he attends the first regular class meeting where he is supplied with a student handbook which contains the modules for the course. Generally, this class meeting is used to describe the overall objectives of the course and to discuss the content of the handbook. Additional activities such as identifying learning teams and assigning field experience sites are also considered. From this time on, instructors hold regularly scheduled class meetings, conduct seminars, and organize discussion groups that students may attend. The extent to which regular class attendance is mandatory varies with the course. But we are concerned that students have continuous contact with instructors and with other trainees. We find, as have others, that such contact provides a certain needed sense of security for students as they undergo individualized learning experiences. It has been reported to us, for instance, that some PBTE programs are perceived by students as being made up of "correspondence-like" courses. We mean something much more than this when we use terms such as individualized and self-instructional.

The pattern of the instructional process for a module is depicted in Figure 1:

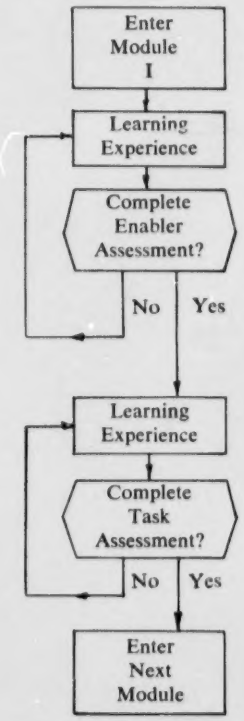


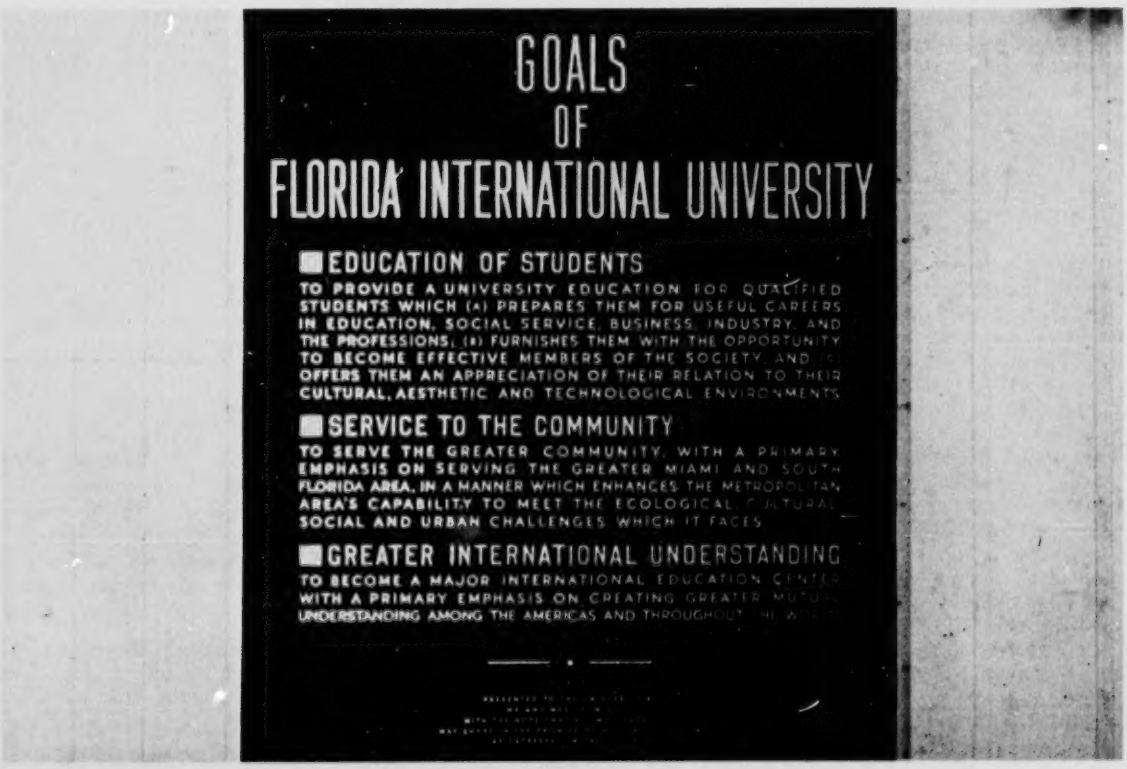
Figure 1. Instructional Process.

When the student is ready to begin he enters Module I. After the necessary study the student completes the work for the enabler(s) for the first task. If the result of his efforts is assessed as acceptable work, the student begins on the task. However, if the result is unacceptable, the student is directed back to the instructional resources for further work on his enabler deficiencies.

Once the student has completed the enabler(s) he begins to work on the task. If the performance of the task is acceptable, the student is informed that he may proceed to the next task (and set of enablers), or the next module if all tasks for the module at hand are completed. However, if the student does not perform creditably, he must go back to the drawing board once again. Further study and practice are required until the task can be successfully completed. When the student completes all of the tasks and required enablers he receives credit for the course.

Summary

This short article was intended to familiarize the reader with the FIU module format, terminology, and instructional process. It is hoped that this knowledge will be an aid as you continue to read this series of articles about the FIU PBTE program.


GOALS
OF
FLORIDA INTERNATIONAL UNIVERSITY
EDUCATION OF STUDENTS
TO PROVIDE A UNIVERSITY EDUCATION FOR QUALIFIED STUDENTS WHICH (a) PREPARES THEM FOR USEFUL CAREERS IN EDUCATION, SOCIAL SERVICE, BUSINESS, INDUSTRY, AND THE PROFESSIONS; (b) FURNISHES THEM WITH THE OPPORTUNITY TO BECOME EFFECTIVE MEMBERS OF THE SOCIETY, AND (c) OFFERS THEM AN APPRECIATION OF THEIR RELATION TO THEIR CULTURAL, AESTHETIC AND TECHNOLOGICAL ENVIRONMENTS
SERVICE TO THE COMMUNITY
TO SERVE THE GREATER COMMUNITY, WITH A PRIMARY EMPHASIS ON SERVING THE GREATER MIAMI AND SOUTH FLORIDA AREA, IN A MANNER WHICH ENHANCES THE METROPOLITAN AREA'S CAPABILITY TO MEET THE ECOLOGICAL, CULTURAL, SOCIAL AND URBAN CHALLENGES WHICH IT FACES
GREATER INTERNATIONAL UNDERSTANDING
TO BECOME A MAJOR INTERNATIONAL EDUCATION CENTER WITH A PRIMARY EMPHASIS ON CREATING GREATER MUTUAL UNDERSTANDING AMONG THE AMERICAS AND THROUGHOUT THE WORLD

General Teaching Skills Laboratory I

by

Francis T. Sobol

The teaching skills portion of the Core Program* is founded on John Dewey's philosophy of learning by doing; i.e., that reading, writing, and talking about teaching are not enough to produce an effective instructor. As Philip Jackson pointedly demonstrates in "Life in Classrooms,"[1] even a well-trained educational psychologist cannot "become" a teacher without performing the major tasks of teaching *before* taking over a class.

Jackson's book reiterates one of the oldest questions in education: Is teaching an art or a science? The Teaching Skills Laboratory takes the position that effective instruction begins with a "science of teaching." There are teachers who have raised this science to an art, but an analysis of their performance will demonstrate that these teachers have command of a basic set of instructional skills. One of the goals of this program is to specify those basic skills and then to provide an effective training program wherein preservice teachers can gain personal control of these instructional skills.

Content of the Teaching Skills Laboratory

The search for general teaching skills began with the assumption that a series of generic teaching activities exist which are relevant to all teachers, all grade levels, and all subject matter. Observations of teachers in their classrooms led to the following list of general teaching skills.

All teachers are expected to be able to:

1) Develop learning objectives and lesson plans to achieve those objectives;
2) Present information to students;
3) Hold discussions with students;
4) Plan lessons and activities which stimulate student involvement in the lesson;
5) Provide positive teacher-student interactions which lead toward greater student participation and initiation during the lesson;
6) Manage classroom discipline, and
7) Develop tests for the assessment of student learning.

This outline of topics for a general teaching skills program was compared with research findings relating teacher behavior to student achievement. V. Barak Rosenshine's "Teaching Behaviors and Student Achievement"[2] was a prime reference for seeking sources of specific behavioral definitions for each topic. In addition, N. L. Gage's "Program on Teaching Effectiveness"[3] provided a synthesis of clinical, factor analytic, experimental, and correlational studies of teacher behavior. The end result of this analysis was a more detailed listing of teaching competencies. (These are available upon request.)

These competencies are contained in seven training modules which form the content of General Teaching Lab I. Having mastered these competencies, the students are ready to progress to special methods courses where they will study the specialized instructional methods unique to their subject matter. Their Core Program of teaching skills provides the foundation of the study of special methods. In addition, students demonstrate the general teaching skills during their 10-week student teaching program.

Learning Process in the General Teaching Skills Laboratory

The specification of general teaching competencies was only the first part of a teacher training program based on "learning by doing." Having specified what was to be learned, the next goal was to devise a training program which was both effective and efficient.

Three approaches to learning were used to develop the guidelines for the competency-based teaching clinic used in this program. Skill learning,[4] selective learning,[5] and social learning[6] led to seven conclusions about the necessary elements for an effective teacher training program. Such programs should include the following components:

1) Explicitly defined teaching behaviors or actions
2) Model demonstrations of the teaching behaviors
3) Discrimination training for the teachers so that they pick out the relevant cues that make up the teacher action
4) Practice of the desired teaching skills
5) Immediate feedback on practice performance
6) Repractice opportunity so that the trainee can reach a criterion level of performance
7) Reinforcement of the teacher's performance — rewards through doing the task well, rewards from student comments, rewards from supervisor comments.[7]

In order to implement these seven steps, the following instructional plan was developed:

1) Information gathering stage: Students read their "Student Handbook" for printed materials defining the various skills to be practiced. Then the students attend large group meetings to see video taped demonstrations of the teaching behaviors. During this time the professors provide discrimination training using model demonstration of the desired teaching actions. Time is allowed in these sessions for student questions.
2) Information use—team planning time: Students are grouped into four-member learning teams for practice teaching sessions. The learning teams are encouraged to meet after the information gathering sessions to plan lessons and to discuss the skills to be practiced.
3) Information use — small group discussions: Small group discussions are held during scheduled classtime once the students have viewed the demonstration teaching tapes and met in learning teams.
   During the first half of the program these discussions tend to center on the nature of the skills, the types of subject matter to be used with the skills, and the planning of a lesson using the skills. During the latter half of the program, students prefer to discuss the relevance of the teaching skills to particular situations.
4) Information use — practice teaching: The culmination of these three stages is a practice teaching session in which each student uses a lesson plan, teaches a lesson to team members, and reviews the lesson by means of a supervised video tape replay. Each student has a chance to teach while team members role-play as students. Only peer teaching is used in these practice sessions. A future goal is to provide practice teaching sessions with schoolchildren.

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* The Core consists of three courses; the Sobol and Kampsnider articles describe two of these, the third course is entitled "Schooling in America" but is not described in this newsletter.

Laboratory I, . . . *Cont.*

The student-teachers arrive at the practice session with a prepared lesson plan based on guidelines provided in the "Student Handbook" for this program. Trained supervisors use an observation form which parallels the student's lesson plan and the teaching skills for that plan.

Administration of the Laboratory: Differentiated Staffing

The ultimate student task in the teaching skills program is a series of demonstration lessons taught by each teacher trainee. This task requires supervision and feedback to the students. In order to meet this requirement, the teaching skills program adopted a differentiated staffing pattern. The major instructional roles of information giver and discussant are filled by regular faculty members.

The supervisory functions are filled by "clinical instructors." This latter group consists of six (6) part-time instructors who have extensive experience in elementary and secondary classroom teaching. That was the major criteria for their selection. The assumption is that anyone with extensive classroom experience can quickly learn the specific skills of this beginning level methods program. Each clinical instructor is trained in the course content and methods of using television in the supervision of preservice teachers.

Each section of the course (100 students) is organized around a teaching team of one faculty member and two clinical instructors. The faculty member has the responsibility of monitoring the performance of the team. The clinical instructors are responsible for supervision of practice teaching and laboratory supervision. Overseeing the entire program is the course coordinator who is a faculty member responsible for the development, management, testing, and revision of the materials and training procedures used in the program.

The clinical instructors perform their role by working with teams of students in a practice teaching clinic. The student teams are organized according to grade levels taught, e.g., early childhood, elementary, secondary, special education. Wherever possible, the teams are also grouped according to specific subject matter, e.g., English, social studies. These teams schedule themselves into a definite time slot for practice teaching. The clinical instructors check student lesson plans prior to teaching, observe the video taped replay of the lessons, and provide feedback to the students by means of an observation form developed for each specific teaching skill.

Administration of the Laboratory: Facilities

The two key elements of this training program are (1) specifically defined and demonstrated teaching behaviors, and (2) teaching practice with immediate audiovisual feedback. These elements require a large investment in video tape recording and playback equipment. All the demonstration models used in the program are on video tape. All the practice teaching sessions are recorded on video tape. To meet these needs, the program has eight permanent video tape recording stations located in the University Media Center. Each station is equipped with cassette model video record and playback equipment. Cassette equipment was chosen to lessen the amount of tape handling, to allow for ease of student-made recordings, to eliminate the need for extra personnel for recording, and to reduce the frequency of repairs due to the handling requirements of reel-to-reel machines.

These eight practice teaching laboratories are reserved for the teaching skills program. They are available to learning teams from 8 a.m. to 11 p.m., Monday through Friday. In actual practice, the rooms are available with a supervisor from 8 a.m. to 6 p.m. daily. But student teams may use the rooms on their own for extra practice even when a supervisor is not available. Once the practice teaching schedule is established for a quarter, some teaching stations are not always in use. These times are made available to special methods instructors for their practice teaching requirements. In addition to the equipment for the eight practice teaching stations, four additional sets of equipment are available for backup and practice.

Administration of the Laboratory: Materials

A competency-based teacher training program cannot be implemented successfully without explicitly defined and demonstrated teaching competencies or behaviors. Anything short of such concrete models forces the students and instructors to depend on the written "models" which are used in more traditional textbook-based education programs. Fortunately, in the area of teaching skills, the federally-supported research and development centers and laboratories have provided a wide array of specifically defined and demonstrated models. This program has depended on the Stanford R & D Center and the Far West Lab (San Francisco) for a major portion of its materials. Most of these materials are now provided as part of a field test program supported by the Florida State Department of Education. Consequently, there is little cost to the program. But every program has special needs which seem best handled through internal development. Consequently, the staff of the School of Education at Florida International University helped develop training tapes for lesson presentation skills, discussion skills, and skills for increasing student participation. One unexpected benefit of these locally developed demonstrations was the positive attitudes expressed by our students as they recognized other professors during the model demonstrations. The expressed attitude was something like: "I know him; he's my methods teacher; and he *is* good."

Any school desiring to develop a competency-based teaching skills program could benefit from the experiences and materials of the various research and development labs and centers. The central attitude for building such a program should be: "We don't want to re-invent the wheel." The most efficient and economical manner in which to build a library of demonstration materials is to identify already developed and tested materials and adapt them to specific program needs.

Looking Forward

The concept of a Core Program as the foundation for all future studies in education puts a special burden on the elements of that program — namely, to be clearly related, notably integrated, and specifically applicable in succeeding programs. This is the "whole" of the Florida International University competency-based effort. The successful development, testing, and revision of the Teaching Skills Laboratory is one part of that whole. Now that the elements of the laboratory are established, it is time to turn to the fulfillment of the Core concept. Thus, during the coming year, the Teaching Skills Laboratory will join the other two parts of the Core Program:* Teaching Lab II (Human Relations and Communication), and Schooling in America, to offer an experimental section of the Core Program which will allow a student to enroll in the entire Core at one time. The emphasis during the experimental program will be the integration of the facts, ideas, concepts, and skills of the three courses (16 modules).

A second major objective for this academic year is the development of materials from the Teaching Skills Laboratory which can be used in special methods courses to aid the continued development of the students' teaching skills. A necessary correlate of this activity will be the development of materials from the Teaching Skills Lab which can be

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* The Core Program consists of three courses (15 hours) that are taken by all undergraduate students in the school.

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Laboratory I, . . . *Cont.*

utilized by our trainees during their extended practice teaching activities in local schools. These two developmental activities will require the close cooperation of Lab faculty, special methods professors, and supervising school personnel. This will be the most critical activity of the year. If the skills of the Teaching Skills Lab are not clearly integrated and demonstrated in both the special methods and student teaching programs, then there is limited hope that the teaching skills will become a permanent aspect of the trainee's classroom teaching.

Assuming that the experimental integration of the three Core courses is a success, then the program will have two offerings for students: a series of separate Core courses and a unified Core course. There is also a third option; given the modular basis of the course, it is possible that the Teaching Skills Laboratory could be developed into a completely modularized course in which students pick the module they want to study at a time they want to study it. Such a development would allow students more freedom in building their programs and it would force the program to develop more training modules to provide a greater selection of skill content alternatives. The ultimate version of the Teaching Skills Laboratory should be similar to a "Teacher Training Automat" [8] or a "cafeteria of alternatives" [9] which contains a vast menu of training materials, models, and procedures. The present Teaching Skills Laboratory is just the first step toward a more comprehensive training program.

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[1] Jackson, P. W. *Life in Classrooms.* New York: Holt, Rinehart and Winston, 1968.

[2] Rosenshine, B. *Teaching Behaviors and Student Achievement.* Windsor, Berkshire, England: National Foundation for Educational Research in England and Wales, 1971.

[3] Gage, N. L. "Program on Teaching Effectiveness Current Organization Plans" Stanford, Calif.: Stanford Center for Research and Development in Teaching, mimeograph, May 1973.

[4] Fitts, P. M. Perceptual-motor Learning. In A. W. Melton (Ed.), *Categories of Human Learning.* New York: Academic Press, 1964.

[5] Noble, C. E. Selective Learning. In E. A. Bilodeau (Ed.), *Acquisition of Skill.* New York: Academic Press, 1966.

[6] Miller, N. E., and Dolland, J. Social Learning and Imitation. New Haven: Yale University Press, 1941.

[7] Sobol, F. T. *Student Handbook for a General Teaching Skill Clinic: A Performance-based Teacher Training Program.* Miami, Florida: School of Education, Florida International University, mimeograph, 1972. pp. 3–7.

[8] Snow, R. E. "A Model Teacher Training System: Overview." Stanford, California: Stanford Center for Research and Development in Teaching, R T D Memorandum No. 92, 1972, p. 5.

[9] Joyce, B., and Weil, M. *Models of Teaching.* New Jersey: Prentice-Hall, Inc. 1972. p. xiv.

Human Relations Training: General Teaching Lab II

by

John Kampsnider

The human relations training component of FIU's performance-based program was designed as a part of the "core" experience and was entitled General Teaching Lab II. Human relations training was planned as the affective dimension of the general teaching skills to be offered as a "core" course to all education majors. This laboratory experience was to include training for competencies in the following general areas: 1) analysis/development of self-concept; 2) communication skills; 3) interpersonal skills; 4) group interaction skills, and; 5) understanding and interaction with pupils from varying cultural backgrounds.

Once an FIU schoolwide planning committee had reached agreement on the generic competencies mentioned above, a survey of existing human relations training programs was conducted for purposes of comparison and evaluation. The planning committee decided that the *Interaction Laboratory for Teacher Development,*[1] which was designed and written for Weber State College, Utah, offered a close approximation to the desired model from which General Lab II should

Human Relations . . . *Cont.*

be developed. The advantages of these materials included the fact that they are not trainer-dependent (it can be delivered by faculty with a variety of educational backgrounds) and have proved to be a valuable asset to the Weber State performance-based teacher training program.

Once the competencies for General Teaching Lab II had been agreed upon by a committee representing all program areas, a general methodology adopted and developmental staff hired, the program was ready to be divided into modules within a course framework. This was to become the most difficult stage of the development of the human relations training component, in that it involved operationalizing the recommended competencies into modules which had to be delivered within a somewhat traditional course framework of a statewide university system. In terms of the School of Education at FIU, it meant that each section of General Teaching Lab II would be composed of 30 students. The number of students became the critical design factor in that the *Interaction Laboratory* was originally designed for a maximum of 20 students and was, in fact, found to be most effective with groups of 15 students.

With the above problem in mind, the competencies were grouped into three modules: "Teacher Interaction Laboratory," "Self-Concept," and "Cultural Differences." The Teacher Interaction Laboratory module was to be delivered in a classroom group setting and provide approximately 25 hours of experimental group activities, whereas the other two modules were designed as self-paced modules which were to be completed outside the classroom setting. The 30 students registered in each section of the course were to be divided into two subgroups of 15 students each. While one subgroup worked on the Teacher Interaction Laboratory module in class, the other subgroup was to complete Self-Concept and Cultural Differences modules on an independent study basis. This delivery system allowed the School of Education to provide the course to 300 students (10 sections) during the opening quarter of classes (fall 1972).

Once the logistical problems of the delivery system were solved, the modules were expanded into tasks and enablers with constant concern given to methodology of delivery and time constraints of the course schedule. At the time classes began in the fall of 1972, the Teacher Interaction module comprised a reduced version of the original Interaction Laboratory covering communication skills, group interaction skills, and interpersonal skills. The Self-Concept module combined an evaluation of personal self-con-

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cept, a field experience, and a basic understanding of self-concept as it relates to pupil growth and academic achievement in the school setting. The Cultural Differences module provided background in understanding pupils from different cultural settings and field experiences in compensatory programs for children from different cultural backgrounds.

As is the case with most affective training programs, direct evaluative measures of affective competencies, i.e., actual student expression of specific behaviors, attitudes and/or feelings, are usually too difficult or expensive to be carried out. Indirect evaluative measures, i.e., attitude scales, can be handled logistically. However, such instruments usually suffer from problems of low validity and/or reliability. For example, indirect affective measures of learning in General Teaching Lab II would only relate to simulated classroom activities and would be of questionable validity in terms of perceptions and attitudes toward the real world school setting. In view of these difficulties the evaluation of affective learning in the Teacher Interaction module was limited to the "receiving" and "responding" levels of Krathwahl's taxonomy. The Self-Concept and Cultural Differences modules each have some tasks which are measurable at these same levels; however, for the most part they contain measures of concepts at the higher levels of the cognitive domain. It should be noted that future plans to move portions of the human relations program into the field would allow more direct measures of affective learning via such instruments as Flander's Interaction Analysis, and interpersonal and behavioral strategies approach similar to those presently being developed in other performance-based teacher training programs.

Delivered within the structure noted above, the general results after the first quarter of operation of General Teaching Lab II can be summarized as follows:

1) Student reaction to the modules was highly positive on almost all items of a detailed course evaluation.
2) The teaching faculty reported only minor problems in terms of delivery of the course.
3) The field experience task for the Self-Concept module became unwieldy in that there were not enough available classrooms in the field to provide a continuing experience for 200 to 300 students per quarter. (The field experience for the Cultural Differences module did not present this problem, owing to the allowance for more students on site.) Also, in this regard, there were problems in screening such a large group of students prior to their visiting a local school.
4) The subgroup working outside of class clearly indicated a need for more faculty support while working on the self-paced materials. The stated problems were eliminated during the winter quarter 1973, by dropping the Self-Concept field experience and providing two special class meetings of the self-paced group. Also, the self-paced students were placed in small discussion groups which added further psychological support during their out-of-class activities.

After completion of the revisions noted above, the results of spring quarter were highly positive in terms of student and faculty course evaluations; however, there were clear indications from a programwide perspective that there is further work to be done. Informal discussions with faculty teaching the other two "core" courses revealed several indications for further changes in the overall "core" program. First it was noted that there was some content overlap among the three "core" courses. Second, there was clear indication that students who had taken one of the General Teaching Labs demonstrated above average skills when taking the other. This was particularly true for those students in General Teaching Lab I who had already taken General Teaching Lab II. Third, feedback from General Teaching Lab II faculty revealed some disappointment in that fact that subgroups completing the Teacher Interaction module were just becoming a working group at the point when they had to move on to complete the self-paced modules.

Several implications resulted from the concerns expressed by the faculty teaching the "core" courses: 1) there appears to be a need to reduce the overlap in content areas among the "core" courses, 2) the group process and group skills developed in the human relations course need to be extended to the other "core" courses, 3) there appears to be some value in sequencing the "core" courses (General Lab II preceding General Lab I) so that one set of competencies can be used to build upon others. These implications resulted in the development of a plan of action which we have entitled "experimental core." This plan will be tested in the fall quarter, 1973.

The "experimental core" will involve approximately 45 new students who will be enrolled simultaneously in all three "core" courses. The students will be divided into three subgroups of 15 members each and each subgroup will begin the "core experience" with the Teacher Interaction module of General Teaching Lab II. At the same time, these students will begin all readings and individualized course work on all three "core" courses. Upon completion of the human relations training module, laboratory groups will continue to work together on those modules which are conducive to group discussion from the other two "core" courses, and interaction. Any course materials, such as films, lectures, or video tapes will be carried out with the entire group of 45 students. Microteaching teams will be composed of four members from each laboratory group and critiques of microteaching will be conducted in the original laboratory groups. It is our hope that this "experimental core" will enhance the overall core experience through improved methodology and delivery, through a reduction of content overlap, and most importantly, through reinforcement of interrelated competencies among the "core" courses.

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[1] Thiokol Chemical Corporation, 1971.

John Kampsnider

The Field Experience Component in PBTE

by
Robert Shostak

At the outset it was clear to the faculty that a PBTE program requires that preservice teacher trainees have access to pupils in classroom settings early and frequently in their training. Providing for this is the way that seems to be essential continues to be one of our greatest challenges. We recognize that success in arranging for extensive field-set training opportunities will continue to depend on how willingly and how well our Education faculty, those responsible for the operation of the schools (in our case primarily the Dade County Public School System), and the teaching profession can join in a collaborative effort to design this aspect of our PBTE effort.

Our School of Education established teacher preparation programs in health and physical education, childhood and secondary education, special education, and vocational education. Undergraduates enrolled in any of the foregoing programs begin their professional training with the core of three courses designed to provide both a knowledge base and a number of general teaching skills as prerequisites for future work in their fields of specialization. Following the completion of this core of three courses, students are enrolled in the particular "methods" courses of their teaching specialties. These specialization courses continue to build on the student's knowledge base while training him to specific teaching skills in the various subject matter areas. The final training experience in each instance is a full-time, 10-week student teaching stint in the public schools.

Because each of our training programs depends so heavily on experiences which require students to be with school people and to exhibit a variety of teacher behaviors with pupils, much of a trainee's time must be spent in a real school setting. These real school experiences can be roughly divided into two types. Type I experiences are those which do not require direct participation by a trainee in a teaching situation. These kinds of experiences include such things as interviews with teachers, students, parents, administrators, community agency personnel, and school service personnel; formal and informal observations; attendance at teachers' meetings; and participation in curriculum planning sessions. Type II experiences are those which require the trainee to participate directly with pupils in the classroom setting. These kinds of activities include tutoring, microteaching, and small and large group instruction.

To provide the opportunity for this variety of experience for our students seemed to call for the establishment of a network of training centers, which might be whole schools and/or departments in schools that would affiliate with us and become essentially extensions of the campus into the field. It was with this idea that we approached two groups for discussion. We held a number of conferences with personnel in the Division of Instruction and in the Staff Development Center of the Dade County schools. In these sessions we described, overall, our desire to bring into being a PBTE program, and we stressed the in-field activities that it would require. In these discussions we also called attention to the contribution we felt we could make in providing a variety of services to these "center" schools by making faculty time and expertise available to the staff of the school in whatever ways they viewed as useful. I think it is accurate to say that our plans to develop a PBTE program were seen as exciting and proper, and we gained the support of the Dade County level staff to assist us in gaining entree to the several area superintendents, their staffs, and personnel at the building level for discussion purposes.

At about the same time, we were invited to discuss our program plans before a meeting of the Executive Board of the Dade County Classroom Teachers Association. At that presentation we again stressed the in-field requirements of PBTE, and our ideas for a network of teacher centers. Out of that meeting came an open endorsement by the Dade County Teacher Association in the form of a special article in their newsletter to members. Thus by January 1973, the stage had been set for the planning that would entail the University, the school district, and the teaching profession, and out of which would come the agreements and the modus operandi that would bring these parties together in the field in a mutually reinforcing effort.

This task remains uncompleted at this writing. Progress has been made on the part of all parties to this task in gaining a better understanding of what is really entailed in establishing and operating such training centers. During this time we have placed a good many students in the field for experiences in schools or departments that have shown an interest in becoming centers. But we are still in the "becoming" phase. It would seem useful and potentially helpful to other PBTE aspirants if we shared with you some of the specifics with which we are dealing as we try to forge this aspect of our program.

Although most of these specifics are clearly interrelated, they appear to evolve as a result of (a) the uniqueness of our student body, (b) sheer size of program, (c) school district administration, (d) public school organization, and (e) the professional teaching organization.

Our first challenge arises from the fact that our students are commuters from all over the Greater Miami area. Many of them work; and many attend school only part time. This combination of factors leads to several concerns. First, a great deal of the power in the idea of training centers is just that — a center where the University can concentrate its resources. Thus, until we have sufficient support to operate a number of centers located across the full geographic area of Dade County, many students must travel great distances in order to meet field commitments. This can cause unusual hardships and, therefore, reluctance in some cases. Second, trying to schedule working students into time slots in the field which are compatible with their university classes and work schedules is sometimes next to impossible. Furthermore, trying to maintain continuity in training experiences in the field becomes extremely difficult for many working students who must pick and choose a course at a time when it fits into their own personal schedule, rather than following any consistent training program plan.

Our next challenge stems from the sheer size of the student body in our PBTE programs. Plans for the management of some 1,000 students seeking field experiences that are a part of any one of many different courses require a good deal of careful thought. The logistics of this are formidable. Not the least of our concerns here is reconciling faculty workloads which require much greater than usual time commitments in the field (managing student placements, assisting supervising teachers, participating in inservice education at the center) with resource generating formulae that are geared to student credit hour generation.

Another challenge stems from the responsibility to maintain a philosophical and operational stance which will continually assure those who are responsible for the management of the Dade County School System that the program which they are asked to collaborate in will be as beneficial to the school district as it will be to the University. School district officials are well aware of the

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University's agenda. Understandably, they want to make certain that their agenda is considered too. In another vein, in large school districts (Dade County — approximately 250,000 students) which have established policies and standard operating procedures, it takes time to make the changes required when a school of education faculty and hundreds of trainees are to be assimilated into a number of the district's schools. Maintaining adequate lines of communication with school officials at the district level poses another challenge. Most of the University's efforts are directed at what is going on in the classroom; consequently, the time needed for adequate program feedback is often sacrificed to more immediate participation with supervising teachers and trainees. Yet administrators and directors must be kept aware, in a larger sense, of what is going on in those schools and classrooms for which they have direct responsibility.

At the school sites themselves there are a number of matters that we are coming to perceive as crucial to a center operation. One is as old as teacher education itself — how can appropriate time and opportunity be found for teachers and faculty to work together in making it go? In fact, this concern goes beyond time itself; it includes the need for all parties to gain experience in working together and translating collaboration from meaning to operation. There is something new here for a principal, for teachers, and for professors. Other training site concerns are the matters of needed training space and equipment. Center activities must go on someplace, and space and facilities may well become one criterion for a school's becoming a center.

We have carried on a limited dialog with the major local professional teaching organization at various stages of our planning. Such organizations in large urban areas like Miami have reached a point in their development where they play a growing role in the affairs of the school district. Their influence can be far reaching and touches all the areas crucial to the successful operation of a teacher training center. They are concerned with curriculum development, teacher workloads, the use of interns in the classroom, and professional development, to name a few. Planning of teacher training centers or other collaborative ventures with a school district should most definitely include the input of the professional teacher groups. The depth and nature of their involvement will depend, of course, on the stage of development of the individual organization. But they are an essential ally to efforts to realize PBTE programs. It is our intention to increase our dialog with the organized profession. To date, they are supportive, albeit (and understandably) somewhat skeptical; however, one of the exciting aspects of our venture is the orchestration of the tripartite — University, school district, teaching profession — whose collaboration is essential to significant field experiences.

It is important to note here that the 1973 session of the Florida Legislature passed a Teacher Center Bill. This is a permissive piece of legislation which seeks to encourage the collaboration of school districts, the teaching profession, and universities in the establishment and operation of teaching centers much as we have envisaged them. During this next year, a State Council is to develop guidelines and procedures for the development of the first generation of such centers in September 1974. Having this legislation on the books adds to our feeling that we are on the right track insofar as the field aspect of our PBTE effort is concerned.

These, then, are a few of the kinds of challenges we have encountered as we venture deeper and deeper into the "bush" of PBTE. How many of the problems we have encountered will repeat themselves in other programs around the country as they begin to take a similar path in the development of their teacher training programs is difficult to say. However, it is certain that whatever the cost, the results we are beginning to see are certainly worth the effort.

Evaluation: Data Collection, Analysis, and Reporting

by

Lorraine R. Gay

In the School of Education, data are collected for four major purposes: 1) to assess student progress toward acquisition of prespecified competencies, 2) to prepare end-of-quarter course analyses which include group statistics on student achievement, 3) to assess students' attitudes and opinions toward courses, instructors, and performance-based education in general, and 4) to assess the effectiveness of individual programs. Each of these purposes requires different data configurations and different analysis procedures.

Student Progress Data

As a student works through a set of modules, a record is kept of his attempts for each task and each enabler. On a form specifically designed for this purpose, the date of each attempt is recorded, as well as an indication of successful or unsuccessful completion (1 or 0). These records are maintained by individual faculty members, either entirely or jointly with the Assessment Center.

Grading

The grading system in the School of Education is basically a credit-no credit system. When a student has successfully completed all modules required by an instructor, his grade is reported as a Credit (CR). Some courses offer an Honors Credit (HCR) option; ideally, achievement of an HCR involves acquisition of additional competencies. While most courses permit self-pacing, the School is organized on a quarter system. If a student has not completed all required modules by the end of the quarter, he receives a grade of No Credit (NC). When the student completes the remaining modules, the grade is changed to a CR.

No Credit grades are of two major types. One indicates that the student has made satisfactory progress and may simply complete the remaining work. The others indicate either that the student withdrew from the course (NC-1) or that the student has not completed a sufficient proportion of the work (NC-3). A "sufficient proportion of the work" is defined by each instructor for each course. A student receiving an NC-1 or NC-3 must reregister for the course before he can receive credit.

The current grading system was originally approved by the Florida Board of Regents on a 2-year trial basis, its continuation or discontinuation to be based on a comprehensive evaluation of its desirability and utility. At the present time, however, the grading system is an extremely controversial issue among faculty members in the School of Education. After 1 full year of operation, faculty members are divided on the issue, taking one of the following four basic positions:

1. In a performance-based system, all students achieve all competencies, varying only on time for completion and num-

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ber of attempts. Therefore, all students who achieve those competencies should receive the same grade, CR.

2. Students are different; although students achieve the same competencies they do so with varying levels of sophistication. Therefore, those students who achieve at higher levels should receive a better grade, HCR.
3. Although there are competencies which all students must achieve, students should be given the opportunity to achieve competencies beyond those required for CR. Students who achieve additional competencies should achieve a better grade, HCR.
4. Although all students should achieve all competencies, students, even at the college level, vary widely in ability, motivation, and performance as evidenced, for example, in number of attempts. Grades should reflect these differences. Therefore, the only grading system which can adequately discriminate is an A-B-C system.

Until the issue is resolved to the satisfaction of the majority of the faculty, the School will continue to operate within the originally approved system.

The Assessment Center

The Assessment Center serves as a central data collection/processing location for the School of Education. In the Assessment Center, a major portion of the evaluative activities related to written test enablers, and in some instances tasks, take place. The large numbers of students in the various programs, and the volume of enablers to be evaluated, necessitated the Center's existence. The Center can handle the assessment of certain learnings, permitting instructors to spend more time on evaluation of higher order learnings.

Instructors utilizing the Center provide criterion-referenced tests, answer sheets, answer keys, and initially, a class roster. Students using the Center request tests in terms of course, module, task, and enabler, e.g., "EDU 305, Module II, Task 1, Enabler 3." Graduate students, serving as assessors, administer and score the tests and record the results on the data forms previously described. The assessors also inform students of the adequacy of their performance and provide appropriate feedback. When necessary, students are given additional opportunities to successfully complete a test; instructors are encouraged to provide sufficient alternate forms for each test. In some cases, instructors and the Assessment Center maintain separate records on the same course which are merged at the quarter's end. In other cases, a master record is maintained, either at the Center or by the instructor. In these instances, instructors and assessors communicate with each other with report forms. These forms indicate which task or enabler was attempted, when, by whom, and whether it was successfully completed. Report forms must be signed by whomever has done the assessing. Data collected from the Assessment Center, as well as individual instructors, are the major inputs for the proposed Computer Management System for Performance-Based Curriculums.

The Computer Management System for Performance-Based Curriculums (COMSPEC)

COMSPEC is the computer system being designed to manage student progress data on enablers, tasks, modules, and courses, and to report this information to instructors, advisors, and the administration in the manner most appropriate to each user group. Major system objectives include:

1. Establishment of a record for each student which includes his planned program of studies (course prescription) and his progress through courses in terms of the modules, tasks, and enablers which comprise each course.
2. Reporting to instructors, on a weekly basis, the performance of students in their courses, the report indicating which enablers, tasks, and modules were attempted and completed by each student. Weekly reporting on enabler data is optional, being included only at the request of the instructor.
3. Establishment, by instructors, of certain criteria regarding individual student progress on tasks and modules which, if not met, should be reported to them so that they may respond more quickly to difficulties students may be having. A report of this kind is referred to as a Red Flag Report. A Red Flag Report may include, for example, a listing of all students who have unsuccessfully attempted a task two or more times.
4. Providing advisors with a list of students who have registered for courses not included in their original course prescriptions.
5. Providing advisors with a list of students who are carrying one or more No Credit grades.
6. Establishment of a data base of student performance for the purposes of long-range planning and evaluation of programs in the School of Education.

Development and initial implementation of COMSPEC is being funded by a contract with the Florida Educational Research and Development Program of the State Department of Education. The contract includes provisions which insure that the system will be adaptable by other institutions. In this regard, two additional COMSPEC design objectives specify that the system will be 1) structured in a modular way so that tailoring of the system to the needs of other user institutions will be as facile and efficient as possible, and 2) structured in such a way as to insure compatibility with the Student Information Management System (SIMS) being developed by Florida State University so that conversion from a time-based system to a performance-based system will be as efficient as possible (SIMS is being concurrently developed and implemented, also under a contract with the Florida Educational Research and Development Program).

COMSPEC is currently being field tested in the School of Education. During COMSPEC's design phase, all student data have been collected and analyzed manually. During this transition phase, prior to complete system implementation, both computer managed and managed records are being maintained. These records are the sole basis for student grades.

End of Quarter Course Analysis

An additional subsystem of COMSPEC is designed to analyze course data across students and to provide summary statistics on modules, tasks, and enablers. Course analyses are produced upon request and enabler data analysis is optional; instructors need only provide their student data forms for recoding. The analysis includes a listing of all students who have received a CR, that is, have achieved all required competencies, as well as a two-dimensional matrix for those students who have received an NC, that is, have not yet achieved all required competencies. The horizontal dimension of the matrix is a listing of modules and tasks in the course, and enablers if requested; the vertical dimension is a listing of all students who have received an NC. Matrix entries (*'s) indicate which tasks each student *has* successfully completed. In succeeding quarters when students return to complete the course, the matrix serves as a reference from which an instructor can readily identify tasks remaining to be achieved.

The course analysis printout provides summary information for each enabler and task regarding the following: the mean number of attempts, the frequency distribution of attempts, the mean time for completion (expressed in days), and the frequency distribution of completion time (expressed in days). For each module, the mean completion time and the frequency distribution of completion times is presented; the mean number of modules completed is also given. For courses which administer a complete

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pretest at the beginning of the quarter, the printout indicates the percent of students who successfully achieved each enabler and task prior to instruction. The course analysis facilitates the course revision process, primarily through the identification of student problem areas, e.g., tasks which are requiring inordinate amounts of time for completion. Course analyses from succeeding quarters indicate the success of previous revisions and pinpoint further revision needs. The course analysis is especially useful in courses with large student enrollments where completion patterns are not necessarily evident to the instructor.

Student Attitudes and Opinions

The revision process is greatly facilitated through the acquisition of student feedback. Forms for collecting such data were developed during the School of Education's first quarter of operation. Using these forms, data have been collected at the close of every quarter. Three forms are used to solicit feedback from students: a Course Evaluation form, and Instructor Evaluation form, and a Student Attitudes Toward Performance-Based Education form. The Course Evaluation form contains both forced-choice items and open-ended questions. The forced-choice portion contains items on each of the following: course organization, clarity of competencies to be achieved, fairness of student evaluation procedures, adequacy of feedback concerning performance, degree of self-pacing permitted, amount and perceived worth of competencies achieved, availability and worth of instructional resources, and the degree to which the course was performance-based. Responses are on a five-point continuum from, for example, "completely adequate" to "completely inadequate," or "very well organized" to "completely unorganized." Open-ended questions ask students to indicate aspects of the course they liked most and least, and why, and solicit suggestions for revision of course content and/or procedures.

A composite data summary for all courses in the School indicates the following student attiutdes and opinions on major questions (all figures are approximate): organization of course guides — 95 percent of the students indicate very well organized, well organized, or more organized than not; clarity of tasks and enablers with respect to what is expected — 90 percent indicate always clear, usually clear, or clear more often than not clear; evaluation of student performance on tasks and enablers — 95 percent indicate very fair, fair, or reasonable; adequacy of feedback concerning performance — 90 percent indicate very adequate, reasonably adequate, or adequate; degree to which course is self-paced — 95 percent indicate completely, primarily, or somewhat; usefulness of material in the course — 95 percent indicate very valuable, valuable or somewhat valuable; degree to which the course is performance-based — 95 percent indicate completely, primarily, or somewhat. Although students' attitudes appear to be generally favorable, they will, hopefully, be even more positive during the 1973–74 school year as a result of ongoing course revision.

The Student Attitudes Toward Performance-Based Education form contains primarily forced-choice items, although there is a provision for additional comments. Student attitudes toward the following components of the performance-based system are obtained: the performance-based, modular approach to instruction, credit-no credit grading, the absence of formal "in-class" examinations, the relevancy to teaching of the competencies achieved, and self-pacing. All responses are on a five-point continuum from "very positive" to "very negative."

A composite data summary for all courses in the School indicates the following student attitudes (all figures are approximate): attitude toward the performance-based approach — 80 percent very positive or positive, 15 percent neutral; attitude toward credit-no credit grading — 70 percent very positive or positive, 20 percent neutral; attitude toward absence of formal examinations — 80 percent very positive or positive, 15 percent neutral; attitude concerning relevancy to teaching of competencies achieved — 85 percent very positive or positive, 15 percent neutral; and attitude toward self-pacing — 90 percent very positive or positive, 5 percent neutral. The data indicate that students generally feel very positive toward performance-based education, as they are experiencing it. As a result of course improvement, not only should attitudes toward specific courses become more positive, but also attitudes toward performance-based education in general.

The Instructor Evaluation form presents a number of items on instructor effectiveness to which the student responds on a five-point continuum from "strongly agree" to "strongly disagree." The form contains items on each of the following aspects of the instructor or his instruction: class preparation, class presentation, punctuality, availability, concern, fairness in evaluation, and instructor-student interaction. The student is also asked to give the instructor an overall rating from "outstanding" to "poor" and there is a provision for additional comments.

Concern of individual faculty members as well as the "student-centered" philosophy of the School, promote the uitlization of student feedback in the revision process. In addition, student evaluation forms are a major factor in faculty evaluation.

Program Evaluation

Program evaluation is concerned with questions of internal and external validity. Are the students achieving the objectives of the program, and is achievement of those objectives related to effectiveness in the intended professions? Answers to these questions require evaluation of courses, field experiences, and internship experiences, as well as evaluation of student performance in each of these environments, and ultimately in the professions. Turner (1971) has proposed six levels at which teaching competencies can be demonstrated. Levels of evaluation in the School of Education roughly parallel Turner's criterion levels:

TURNER'S CRITERION LEVELS	LEVELS OF EVALUATION
6. Trainee demonstrates understanding — no performance necessary	Enablers Field Experiences — Type 1
5., 4. Trainee exhibits skills in a simulated or microteaching environment	Tasks
3. Trainee exhibits skills in a real classroom — no student performance data	Field Experiences — Type 2 Student Teaching Inservice Teaching
2., 1. Skills exhibited in a real classroom and appropriate student behaviors are exhibited	Inservice Teaching

Reference: Turner, R. L. Levels of Criteria. *In* B. Rosner (Ed.) *The Power of Competency-Based Teacher Education: Final Report of the Committee on National Program Priorities in Teacher Education.* Washington, D.C.: National Center for Educational Research and Development, Office of Education, United States Department of Health, Education & Welfare, July 1971.

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A Conflict of Systems: The Nature of Institutionalization

by
Stephen M. Fain

The decade of the seventies will be remembered for many things. Thus far it is clear that one set of memories will focus on the question of public dollars in an age of austerity. As the focus of those in power turned to the question of the expenditures of public funds, a wave of enthusiasm was generated in support of productive and efficient approaches. Education, being a great consumer of public moneys, became an issue as the wave crashed upon the concerned public. This is not a surprising phenomenon, as education has traditionally been considered by some as a wasteland of public money. The nature of the educational enterprise has made it a prime target for frugal legislators. Perhaps this is why the seventies is, so far, the decade in which legislative support is being given to the notion of performance-based teacher education and certification.

Clearly those who have followed the development of educational systems, and those approaches associated with the term, are well aware of the fact that models were drawn prior to the seventies. But it appears, that like PSSC Physics needed Sputnik, performance-based systems needed the fiscal crisis of the moment in order to find a legitimate place within the system which supports the educational enterprise. And so today, we find that the State of Florida is presently involved in supporting PBTE generally through the Nine-State Consortium and encouraging a performance-based teacher education program at Florida International University.

It is clear from the disposition of the State Board of Education that the Florida Legislature is anxious to support programs that deliver! That is to say, in this age of austerity any program that focuses on teaching *essentials* is worth more. Further, a program which is, if you will, "objectified" is subject to assessment in "hard" terms. The promise officials of the system clearly see in performance-based programs is *accountability*.

Clearly, the promise leads to the premise that training in PBTE will be assured and that more of the energy existing within the educational system will be directed at that which it is held accountable for. The premise with which officials of the system begin when looking toward performance-based programs is one of *efficiency*.

Performance-based education grows from the cybernetic model. The impact of this model is best understood by the public at large for its product. Symbolized by the computer, the cybernetic model offers the public a model of productivity. Those involved in the development of nonexperimental performance-based education find themselves caught in the press of *productivity*.

The problems facing all who are engaged in the development of systems for performance-based education fall in the realm of accountability, efficiency, and productivity. These terms represent the institution called government, the institution called public education, and the system at large — a value system generally known as society. The problem is that the institutionalized system has developed a paradigm into which all new and sanctioned models must fit. Performance-based education is a well-developed theoretical institution moving toward acceptance and actualization. As we try to effect the merger between our model and the larger system's model we are often in conflict and the need to seek ways of accomodating becomes apparent. The actual experiences of Florida International University's (FIU) School of Education provide us with some important insights into effecting the desired merger.

Prior to the opening of FIU our PBTE training paradigm was cast in rhetoric and its metal was subjected only to tests of logic and reason. This was the so-called "planning period." Upon opening, our rhetoric was tested in the arena of reality.

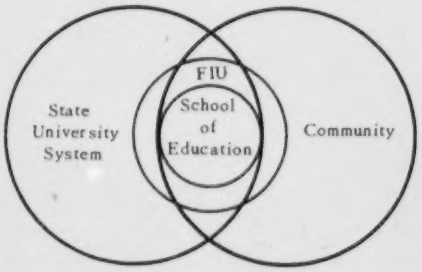

Figure 1. State of Florida viewed as system

Theoretically, the position occupied by the School of Education, as shown in Figure 1, represents a rich environment for the development of the new model. Here we see FIU, within the universe of the State of Florida, as a system contained within the suprasystem of the State University System and the local community. The diagram indicates that the University serves two suprasystems which have some degree of intersection. However, the School of Education is represented as being placed in an area which includes the intersection of three agencies. Included are elements such as a commitment to performance-based teacher education at the state level, supporting funds from the university system, personnel, in-service programs of particular interest groups from the community, and an overall commitment to students from the university. These elements come together to form an environment rich in rhetoric, requirements, and even sometimes demands, but lacking the nutrients needed for support. The system *is* "normal" and it follows that the new model must survive as "normal."

By the time the PBTE program became a paper reality the designers had committed to teach toward the attainment of competencies, to operate in an open arena, and to function under the yoke of a "normal" FTE formula for funding. Further, in meeting its commitment the School had designed a system which required that programs it supported have significant involvement in the community in general and in the schools of Dade County in particular. By September of 1972, FIU was ready to open its doors to its first class of students. The events of the first academic year are significant as they should provide helpful insights to others committed to or interested in the establishment of performance-based educational systems.

Let us deal here, illustratively, with some realities which this first year's experience has pointed up. Specifically, let us consider the general matter of funding, the actualization of self-pacing as an element in individualization, and a grading system. Each of these address slightly different things. The first gets at support and the possible higher costs of PBTE. The second highlights the need for the organizational context in the University to be facilitating of a concept. The last gets at the power of the "usual" over the "new."

Funding

It was noted earlier that the School of Education did receive a budget in 1971–72

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Conflict . . . *Cont.*

to support a planning staff of some 12 persons. This was clearly a "start-up cost" investment by the Board of Regents in support of our initial efforts to get our program ideas in hand. During 1972–73, however, our development effort received no further "special" funding. What we are trying to do has the support of the administration at FIU; that is not a problem. It is simply that the larger system has limited ways of responding to resource needs for other than normal things, and at other than normal levels. This is not offered as a critical comment. It is simply that R & D moneys are hard to come by.

Thus, unlike so many of the projects in performance-based education, FIU's effort receives little additional start-up moneys, no special staff, and is allowed no special opportunities for student selection. In its environment the School of Education must be accountable to all parties in terms of the efficiency of its operation and its products. It is true that we have received some dollar support, referred to as a mini-grant, from the Florida Educational Research and Development fund in support of the improvement of one course component (General Teaching Lab I) in our program. Also, the article by Gay in this newsletter calls attention to a computer management system we are developing on contract with the Department of Education and for use in any university in the system, including our own. But, the idea of significant dollar support over a 3- to 5-year period, and above usual funding levels in order to develop and put in place the PBTE programs desired at FIU has not yet come to the fore.

The data available to date on performance-based systems come from theoretical models most of which are cast in experimental situations or field tests. These programs receive special consideration as their purpose fits into the workings of the "normal" paradigm. FIU's purpose is to be "normal" in terms of the institutional paradigm. Efforts to achieve this purpose have generated some interesting results:

1. Once the model is chartered, redevelopment is a constant requirement. The cost of this redevelopment is not part of the budget system of the "normal" paradigm.
2. Faculty involvement in both program redevelopment and individual student instruction is in excess of that prescribed by the "normal" paradigm.

In the "normal" realm programs are typically developed with an expectation that they will continue to exist in the basic form for a considerable time. This basic assumption holds in the new model also. However, in the "normal" system the courses which comprise the program exist in the form of course outlines, syllabi, and/or catalog description.

In the new model, courses exist as visible elements, i.e., modules, tasks, and enablers. This form not only allows for greater visibility of successful program components, but continues to point out those which need redevelopment. In other words, redevelopment is a constant need. Normally, start-up allowances are made for initial development. Within the new model start-up is as constant as redevelopment. However, no provision is made within the greater system for funding this phase of the operation of our PBTE model.

As the cost of redevelopment must be absorbed by the new model, the faculty and staff which are charged with the task of maintaining the model are placed in a position of serving two masters. Maintenance of the instructional system requires that faculty and staff work within the constraints and expectations of their system. This means in Florida that each faculty member must meet the equivalent of 12 student contact hours. This is normal faculty load; therefore, redevelopment must be undertaken by the faculty and staff on "other time."

The point we would stress is this. Any institution choosing to embark on an effort to recast a program to PBTE specifications should do so with full recognition of the redevelopment costs involved, and a deliberate plan for handling them. Without the dollar support we had for our planning year we would not be where we are developmentally. We find a certain energy source in our newness; our aspirations for "cutting new cloth" help us to extend ourselves. But, we are having to be increasingly realistic about what we will do and when, in relation to what we have to do. This has not lessened our enthusiasm for the task; but we are readjusting time frames and completion dates.

Pacing

A given placed upon those engaged in the development of the PBTE program at FIU was the quarter system. This established a work-time frame of approximately 10 weeks upon all designed experiences. At the same time, one of the basic tenets of our teacher training program is self-pacing. It is clear that this position — no matter how valid within the model — is not consistent with the disposition of the greater system. If a program is to be accepted as legitimate by the greater system, then it must conform to the legitimate State university calendar. The system is time-based and is paced over 10-week quarters. However, the philosophy held by our school supports self-pacing.

The notion that a student can work at his own pace raises two major problems:

1. If a student finds that he has mastered the content of a particular offering prior to the end of the quarter, where does he go if the normal system does not allow for midquarter registration?
2. If a student finds that he needs more time than 10 weeks to complete a course, who is responsible to the student and how is this student accounted for in the funding scheme?

In the first case, the "normal" system is not equipped to deal with this student and two options are open to the School. One is simply to award a grade at the end of the quarter and to allow the student to have time off in the interim. The other is to find an instructor who is willing to work with the student informally for a few days or weeks until the registration period, at which time the student legitimizes what has already been started.

In the second case, the student must either be made to reregister for the course or be carried by the professor in a nonstudent credit hour generating capacity. While the latter is more consistent operationally with the idea of self-pacing for students, it creates very real stresses on the time and energy of the faculty. To follow the first solution may appear to the student to contradict the nonpenalty aspect of self-pacing. In either case the student and the instructor are out of step with the normal system.

Perhaps the most crucial implication growing from this given of 10-week quarters stems from the fact that offerings must be cast within the quarter framework. The "normal" system has not yet developed a mechanism for handling mastery of specific competencies or modules. This is, perhaps, the ultimate in PBTE design but is basically unknown to nonexperimental offerings.

Grading

Even a matter as basic as the grading system to be employed can cause real concern. During our planning year the staff became committed to the idea that a PBTE program, utilizing criterion-referenced evaluation, should not use a typical A-B-C grading system. Rather it was proposed by the Education faculty and accepted by the FIU administration that we employ an HC (Honors Credit), CR (Credit), and NC (No Credit) system of grading. This proposal was questioned, however, by the Board of Regents, who tended to favor the more traditional system of issuing letter grades. Questions were raised in regard to graduate school entrance requirements and the effect of how this kind of grading system would be dealt with by potential employers. In our

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Some Philosophical and Practical Problems of PBTE

by
Daniel A. Kennedy

Some problems relating to various components of our performance-based instructional system will be presented here. The problems to be discussed are associated with the identification and assessment of competencies, faculty time, and variability in performance and pacing by trainees.

Competencies and Assessment

The use of behavioral concepts and practices in recent years has seemed to help in regard to finding more definite relationships between teacher behavior and student outcomes. It would still appear to be a safe statement, however, to say that relationships between teacher behavior and student outcomes are generally not well established. What we choose to assess, therefore, is to an uncomfortable degree often made on logical, rather than empirical grounds. We might expect a PBTE approach to rest solidly on an empirically derived theory which would in turn enable highly accurate deductions to be made for the purpose of planning teacher training. At this time, it is questionable whether PBTE is any better off in this respect than is any other approach to teacher training. This state of affairs, or at least the possibility that this may be the state of affairs, should be openly recognized as one of our starting points.

The assessment of *performance* is usually recognized as a critical element of assessment of student progress in PBTE. The impression is sometimes given that this is the only legitimate form of assessment, and that assessment of knowledge acquisition is taboo. In a given training program it is only possible, given realistic time limitations, to assess a certain amount of student performance on a certain number of performance variables. An interesting question to consider is whether the performances assessed are the totality of what we desire for students to have acquired when they finish the program. Might it be desirable for students to leave a program with a reservoir of conceptual understanding, research information, and the like, the amount of which would be impossible to assess in terms of behavioral performance?

Whether we are interested in assessing student progress in either or both of the performance or cognitive realms, we are faced with the question of measurement reliability. Those who are concerned with reliability in the assessment of cognitive type learning have found that objective measures are preferable to essays or other relatively open-ended means of assessment.

Assessment of performance in teacher training usually involves observation as a major part of the assessment procedure, and the reliability of observations thus becomes an important variable. Another important variable is that of reliability of the performance itself. An example might help to illustrate these problems. The ability to establish rapport with parents might be one of the requirements for completion of a teacher training program. The trainee's performance in interactions with parents would probably be observed to ascertain whether or not this requirement has been met. From a standpoint of measurement reliability, we would have to know whether the same instructor would assess the same (or essentially the same) performance in the same way at different times, whether different instructors would assess the same performance in the same way, and whether the trainee would demonstrate the same behavior at different times with the same and with different parents. For any institution making claim to a PBTE program, these would be crucial questions requiring serious examination.

Faculty Time

Another serious and very practical question is that of how much faculty time can a training institution afford solely for the purpose of making multiple observations on students in regard to a wide array of performance tasks. For example, 16 hours of faculty time would be required for two instructors to observe eight teaching interns in two parent conferences which would last 30 minutes each. Since this would only be one of a variety of performance tasks requiring such observation it is easy to see the tremendous number of hours required for observation, analysis, and feedback of student performance week by week. Given the present faculty student ratio plus developmental work that remains to be completed, committee work, field activities, etc., the development, implementation, and evaluation of PBTE programs require greater amounts of faculty commitment of time and energy.

(continued on page 16)

Conflicts . . . *Cont.*

case the dilemma was resolved to everyone's satisfaction when the Board of Regents agreed to a 3-year experimental use of our proposed grading system. Thus the necessary system accommodation was made readily and we were free to move ahead. But, had the larger system not been willing to enter into this arrangement with us the constraint on our developmental effort would have been direct.

Summary and Conclusion

By this time it should be clear that FIU's School of Education is required to operate as a "normal" program within a "normal" system. However, it carries the promise of the theoretical models and experimental programs well known to those who support performance-based education. It should also be apparent that the School of Education's program is an effort to operate within the limits mandated by the State of Florida's University System. Finally, the reader should be cognizant of the fact that FIU's PBTE model is more experimental than "normal" in the traditional sense.

The problem of becoming legitimate in an institutional setting means not only meeting the standards for acceptance set by the greater institution but also operating within the paradigm maintained by the institution itself. New programs must be at least as efficient, as productive, and as accountable as the existing system. And, if the new program is markedly different, a greater degree of efficiency, productivity, and accountability may be demanded.

Matters such as grading, funding, and pacing are illustrative of that which may face a new program seeking legitimation as other than experimental.

FIU's performance-based model for teacher training is more closely related to programs we generally cast in the realm of experimental. However, the model exists as a program within the "normal" system. In this context the question of productivity is the most crucial question when it comes down to dollar support. No matter what the rhetoric, numbers in and numbers out ultimately reveal productivity in the "normal" system. If the first year of FIU's School of Education demonstrates anything beyond that of experimental, it must be seen as an example of the accommodations which must be made when a theoretical institution seeks legitimacy from a "normal" institution.

Problems . . . *Cont.*

Self-Pacing

A final program to be considered here is the variability in the rate of student progress. PBTE tends to stress the desirability of student self-pacing. Does it or should it make any difference in how long it takes a student to complete a module, course, or the entire training program? Idealistically, the answer to this question should be no. However, when one looks at the practical implications of a totally self-paced program, a number of other considerations including economy and resources must be taken into account. What happens to the student who is working on a cluster of modules over a number of quarters when individual professors move from one set of courses to another set, quarter by quarter? With small numbers, this is manageable whereby the professor can carry the students in addition to his new load; however, as this number becomes larger the professor, in one sense, can end up carrying an overload each quarter. He must assess and provide feedback on the performance of a group of students for which he receives no productivity credit. One can imagine the practical problem of the utilization of faculty time as this situation extends itself from quarter to quarter.

Another consideration to be taken seriously is that a performance-based, self-paced program has to do with the availability of materials and media. With limited resources, e.g., video taping equipment, films, etc., it practically limits the extent and time that they can be used. Where particular tasks require a student to be video taped and assessed on a particular skill, equipment has to be reserved. Because of the number of video tape recording setups the University has, this situation could cause a problem.

A final consideration in the area of self-pacing has to do with the field experience component of the programs. The arrangement for field experiences is presently done on a quarter by quarter basis. Students who do not complete tasks requiring field experiences during the quarter are registered for a particular set of experiences and must be fit into the next quarter's schedule. This of course, can play havoc with the somewhat delicate field experience arrangements. A professor faced with the need to find field experience sites for additional students is sometimes placed in difficult situations.

For some students, it is apparent that the idealized self-pacing concept is a difficult one to deal with. Limitations on faculty time, resources, and field experience sites should be seriously considered as one attempts to provide a self-paced program for large numbers of trainees.

Summary

In summary, the stated problems that pertain to PBTE are real and should be given serious thought. The identification and assessment of competencies, utilization of faculty time, and the variability of student performance and pacing are issues that cannot and should not be taken lightly. However, even recognizing the reality of these problems, these statements are made by one who continues to be committed to PBTE after one year of involvement in such a program.

Evaluation . . . *Cont. from page 12*

At the present time there is no one overall plan for program evaluation procedures. Rather, each division, e.g., Curriculum and Instruction, is responsible for the design and execution of its own evaluation plan. It was determined that while divisions have a number of common concerns (as listed above) there are a number of evaluation questions unique to each of the divisions. For all divisions, however, the ultimate evaluation of each program, at least at the undergraduate level, must be in terms of the performance of student teachers, and the performance of pupils taught by program graduates. The Florida Educational Research and Development Program of the State Department of Education is currently funding projects designed to formulate and field test competency validation procedures which will establish relationships between specific teacher competencies and specific pupil behaviors. The School of Education at Florida International University will certainly be among the first to apply to its competencies any validation model which is successfully field tested.

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